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10/674,642	09/30/2003	Frank Eliot Levine	AUS920030484US1	4690
35525 IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380	7590 03/27/2008			
EXAMINER				
CHOU, ANDREW Y				
ART UNIT		PAPER NUMBER		
2192				
NOTIFICATION DATE		DELIVERY MODE		
03/27/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeciipaw.com

### Office Action Summary

**Application No.**

10/674,642

**Applicant(s)**

LEVINE ET AL.

**Examiner**

ANDREW CHOU

**Art Unit**

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-13, 15-21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13, 15-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-4, 7-13, 16-21, and 24-26 were amended. Claims 6, 15, and 23 were canceled. Claims 27-29 have been added. Claims 1-4, 7-13, 16-21, and 24-29 are pending.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/05/2007 has been entered.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-4, 6-13, 15-21, and 23-26 have been considered but are moot in view of the new ground(s) of rejection. See Johnson et al. US 6,542,985 art made of record below.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the execution" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-4 and 7-9 are rejected under 35 U.S.C 112, second paragraph, for being dependent on independent claim 1.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4, 7-13, 16-21, and 24-29 are rejected under 35 U.S.C. 102(a) as being anticipated by Johnson et al. US 6,542,985 B1 (hereinafter Johnson).

**Claim 1:**

Johnson discloses a computer implemented method in a data processing system for monitoring the execution of a compiled program having a set of groupings, the computer implemented method comprising:

selecting a grouping from the set of groupings for the compiled program to form a selected grouping (see for example column 2, lines 15-19, microcode instructions acting as a selected grouping, "A microcode instruction may include....");

determining, for each instruction in the selected grouping, whether an indicator is present, wherein the indicator is a portion of the instruction and wherein the indicator

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indicates that data on an execution of the instruction by a processor executing the instruction is to be generated (see for example column 3, lines 10-19, "...bit field..." acts as an indicator to indicate which, if any, event counters are to be incremented, see also Abstract);

responsive to the determining that the indicator is present, sending a signal to a performance monitor (see for example column 6, lines 6-15);

generating the data on the execution of the instruction responsive to the indicator being present during execution of the compiled program (see for example column 6, lines 15-23); and

storing the data on the execution of the instruction (see for example column 6, lines 15-23, "data element").

**Claim 2:**

Johnson further discloses the computer implemented method of claim 1 further comprising:

repeating the selecting, determining, sending, generating, and storing associating, executing, and collecting steps for all groupings in the set of groupings (see for example column 2, lines 11-39, wherein each set of microcode instruction words can be selected, and for each set, the indicator is determined).

**Claim 3:**

Johnson further discloses the computer implemented method of claim 2 further comprising:

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performing the repeating step each time a timer expires (see for example column 9, lines 5-25, contents of counter are read out at appropriate time during clock cycle).

**Claim 4:**

Johnson further discloses the computer implemented method of claim 1 further comprising:

responsive to identifying an instruction in an instruction cache for execution, determining whether an indicator from the set of indicators is associated with the instruction (see for example column 6, lines 5-14); and counting each event associated with execution of the instruction provided that the indicator is associated with the instruction to form the data on the execution of the instruction (see for example column 7, lines 15-26).

**Claim 5:**

(Canceled)

**Claim 6:**

(Canceled)

**Claim 7:**

Johnson further discloses the computer implemented method of claim 1, wherein the data on the execution of the instruction provides an identification of a usage of routines in the compiled program (see for example column 5, lines 49-59, the data element upon request for execution provides an identification of a usage or routines, i.e. whether it is an instruction or operand).

**Claim 8:**

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Johnson further discloses the computer implemented method of claim 1, wherein the method is located in performed by a scanning daemon (see for example Fig. 8, item 406, and related text).

**Claim 9:**

Johnson further discloses the computer implemented method of claim 1, wherein the grouping is selected from one of a page, a subroutine, or a module in a program (see for example column 2, lines 15-19, microcode instructions acting as a module, "A microcode instruction may include....");.

**Claim 10:**

Johnson discloses a data processing system (see for example FIG. 6, and related text) for monitoring the execution of a compiled program having a set of groupings, the data processing system comprising:

selecting mechanism for selecting a grouping from the set of groupings for the compiled program to form a selected grouping (see for example column 2, lines 15-19, microcode instructions acting as a selected grouping, "A microcode instruction may include....");

determining mechanism for determining, for each instruction in the selected grouping, whether an indicator is present, wherein the indicator is a portion of the instruction and wherein the indicator indicates that data on an execution of the instruction by a processor executing the instruction is to be generated (see for example column 3, lines 10-19, "...bit field..." acts as an indicator to indicate which, if any, event counters are to be incremented, see also Abstract);

sending mechanism, responsive to the determining that the indicator is present, for sending a signal to a performance monitor (see for example column 6, lines 6-15); and generating mechanism for generating the data on the execution of the instruction responsive to the indicator being present during execution of the compiled program (see for example column 6, lines 15-23); and storing mechanism for collecting storing the data on the execution of the instruction see for example column 6, lines 15-23).

**Claim 11:**

Johnson further discloses the data processing system of claim 10 further comprising: repeating mechanism for repeating the selecting mechanism, determining mechanism, sending mechanism, generating mechanism, and storing mechanism for all groupings in the set of groupings (see for example column 2, lines 11-39).

**Claim 12.**

Johnson further discloses the data processing system of claim 11 further comprising: performing mechanism for performing the repeating step each time a timer expires (see for example column 9, lines 5-25, contents of counter are read out at appropriate time during clock cycle).

**Claim 13.**

Johnson further discloses the data processing system of claim 10 further comprising: determining mechanism, responsive to identifying an instruction in an instruction cache for execution, for determining whether an indicator from the set of indicators is associated with the instruction(see for example column 6, lines 5-14); and



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counting mechanism for counting each event associated with execution of the instruction provided that the indicator is associated with the instruction to form the data on the execution of the instruction (see for example column 7, lines 15-26).

**Claim 14:**

(Canceled)

**Claim 15:**

(Canceled)

**Claim 16:**

Johnson further discloses the data processing system of claim 10, wherein the data on the execution of the instruction provides an identification of a usage of routines in the compiled program (see for example column 5, lines 49-59, the data element upon request for execution provides an identification of a usage or routines, i.e. whether it is an instruction or operand).

**Claim 17:**

Johnson further discloses the data processing system of claim 10, wherein the selecting mechanism, sending mechanism, generating mechanism, and storing mechanism method is are located in a scanning daemon (see for example Fig. 8, item 406, and related text).

**Claim 18:**

Johnson discloses a computer program product in a recordable-type computer readable medium for monitoring the execution of a compiled program having a set of groupings, the computer program product comprising:

first instructions for selecting a grouping from the set of groupings for the compiled program to form a selected grouping (see for example column 2, lines 15-19, microcode instructions acting as a selected grouping, "A microcode instruction may include...."); second instructions for determining, for each instruction in the selected grouping, whether an indicator is present, wherein the indicator is a portion of the instruction and wherein the indicator indicates that data on an execution of the instruction by a processor executing the instruction is to be generated (see for example column 3, lines 10-19, "...bit field..." acts as an indicator to indicate which, if any, event counters are to be incremented, see also Abstract); third instructions, responsive to the determining that the indicator is present, for sending a signal to a performance monitor (see for example column 6, lines 6-15); fourth instructions for generating the data on the execution of the instruction responsive to the indicator being present during execution of the compiled program (see for example column 6, lines 15-23); and fifth instructions for storing the data on the execution of the instruction (see for example column 6, lines 15-23).

**Claim 19:**

Johnson further discloses the computer program product of claim 18 further comprising: sixth instructions for repeating the first instructions, second instructions, third instructions, fourth instructions, and fifth instructions for all groupings in the set of groupings (see for example column 2, lines 11-39, wherein each set of microcode instruction words can be selected, and for each set, the indicator is determined).).

**Claim 20:**

Johnson further discloses the computer program product of claim 19 further comprising: seventh instructions for initiating the sixth instructions each time a timer expires (see for example column 9, lines 5-25, contents of counter are read out at appropriate time during clock cycle).

**Claim 21:**

Johnson further discloses the computer program product of claim 18 further comprising: sixth instructions, responsive to identifying an instruction in an instruction cache for execution, for determining whether an indicator from the set of indicators is associated with the instruction (see for example column 6, lines 5-14); and seventh instructions for counting each event associated with execution of the instruction provided that the indicator is associated with the instruction to form the data on the execution of the instruction (see for example column 7, lines 15-26).

**Claim 22:**

(Canceled)

**Claim 23:**

(Canceled)

**Claim 24:**

Johnson further discloses the computer program product of claim 18, wherein the data on the execution of the instruction provides an identification of a usage of routines in the compiled program (see for example column 5, lines 49-59).

**Claim 25:**

Johnson further discloses the computer program product of claim 18, wherein the first instructions, second instructions, third instructions, fourth instructions, and fifth instructions method is located in a are executed by a scanning daemon (see for example Fig. 8, item 406, and related text).

**Claim 26:**

Johnson discloses a computer implemented method in a data processing system for monitoring the execution of a compiled program having a set of groupings, the computer implemented method comprising:

selecting a grouping from the set of groupings for the compiled program to form a selected grouping (see for example column 2, lines 15-19, microcode instructions acting as a selected grouping, "A microcode instruction may include....");

determining, for each instruction in the selected grouping, whether an indicator is present, wherein the indicator is a portion of the instruction and wherein the indicator indicates that data on an execution of the instruction by a processor executing the instruction is to be generated (see for example column 3, lines 10-19, "...bit field..." acts as an indicator to indicate which, if any, event counters are to be incremented, see also Abstract);

responsive to the determining that the indicator is present, sending a signal to a performance monitor (see for example column 6, lines 6-15);

generating the data on the execution of the instruction responsive to the indicator being present during execution of the compiled program (see for example column 6, lines 15-23); and

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storing the data on the execution of the instruction (see for example column 6, lines 15-23, "data element").

**Claim 27:**

Johnson further discloses the computer implemented method of claim 4, wherein storing the data on the execution of the instructions further comprises:

storing the data on the execution of the instruction in a counter in the performance monitor (see for example column 3, lines 18-36, "...event counters...").

**Claim 28:**

Johnson further discloses the data processing system of claim 13, wherein the counting mechanism for counting each event associated with execution of the instruction if the indicator is associated with the instruction to form the data on the execution of the instruction comprises:

a counter in the performance monitor for counting each event associated with execution of the instruction if the indicator is associated with the instruction to form the data on the execution (see for example column 7, lines 15-27).

**Claim 29:**

Johnson further discloses the computer program product of claim 21, wherein the fifth instructions for storing the

data on the execution of the instruction comprises:

eighth instructions for storing the data on the execution of the instruction in a counter in the performance monitor (see for example column 3, , lines 18-36, "...event counters..." and column 7, lines 15-27).

### **Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Chou whose telephone number is (571) 272-6829. The examiner can normally be reached on Monday-Friday, 8:00 am - 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached on (571) 272-3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free)

/Andrew Chou/

Examiner, Art Unit 2192

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192

